



**Testimony of Anne Hulick, RN, MS, JD;
Director, CT Clean Water Action and Coordinator of the Coalition for a Safe and Healthy
Connecticut.**

Before the CT General Assembly's Public Safety and Security Committee, March 1, 2016

**Testimony in support of HB 5404 An Act Concerning Toxic Chemical Flame Retardants in
Children's Products and Residential Upholstered Furniture**

Dear Senator Larson, Representative Dargan and Honorable members of the Public Safety and Security Committee,

My name is Anne Hulick, RN, MS, JD and I am the Co-Director of Clean Water Action in Connecticut and the Coordinator of the Coalition for a Safe and Healthy Connecticut (CSHC). I am also a nurse with many years of experience in environmental health. CSHC is a large coalition comprised of over fifty member organizations of health professionals, environmental justice advocates, labor groups, public health professionals, environmental experts, faith based groups, scientists and many individuals across Connecticut that are concerned about the growing body of research linking exposure to toxic chemicals with the rise in serious diseases. Toxic chemical exposure during critical windows of fetal development and to young infants and children is of particular concern.

Chemical flame retardants sound like a good thing, something we surely would want in products. The problem is they are highly toxic and don't do what they are purported to do! These chemicals have been added to products containing polyurethane foam with the intention of saving lives by retarding flames. It is now widely accepted that rather than retarding flames, they are highly persistent, bioaccumulative toxic chemicals that off-gas and are commonly found in indoor air and in dust. Research studies show exposure to these chemicals from indoor air and dust is significant. Firefighters have significantly higher rates of certain cancers from exposure to toxic smoke and soot when products containing these chemicals burn. Infants and young children have the highest exposures as they are often in close proximity or in direct contact with the products containing the foam.

Several studies indicate the exposure risk and harm to firefighters. A National Institute for Occupational Safety and Health study examined prevalence of cancer in 30,000 firefighters and found higher incidence of mesothelioma and cancers of the prostate, esophagus, pharynx, kidney, breast, stomach, intestine and lung.¹ Another study found 56% of all career firefighter deaths in 2013 were from job-related cancers—not from injuries fighting fires.²

¹ Daniels, R., Kubale, T., Dahm, M, et al. Mortality and Cancer Incidence in a Pooled Cohort of US firefighters from San Francisco, Chicago and Philadelphia (1950-2009). *Occup Environ Med* 2014; 71:388-397.

² International Association of Firefighters.



Research suggests that there is virtually no fire-safety benefit to the use of these chemicals.³ Under the previous California Flammability standard, TB 117, products containing polyurethane foam are required to withstand exposure to a small, open flame. The chemicals were intended to slow ignition for a period of seconds. However, since it is the foam and not the outer coating of fabric that is treated with these chemicals, the fabric on these products will ignite anyway. Once the fabric ignites, the large flames are not retarded by the presence of these toxic chemicals. Further, the chemicals released from the foam increase the toxicity of the smoke. Exposure to this toxic smoke has been linked to elevated levels of these toxic chemicals in the serum of firefighters as well.⁴ Death or injury from fire is generally caused by smoke inhalation and not direct contact with flames. Deaths from fires have decreased as a result of less smoking in homes, fire-safe cigarettes and smoke detectors and not the presence of these harmful chemicals.

In response to this outdated and ineffective flammability standard, California recently updated TB 117 (see TB 117-2013). The current flammability standard is designed to reflect what actually happens in a fire and can be achieved without the use of these toxic chemicals. Several furniture companies, like Ethan Allen, Macy's, Ikea and Ashley Furniture, are moving away from using them in their products. This is good news as these chemicals are not only present in our bodies but studies show high levels of flame retardant chemicals in our waterways and in wildlife.⁵

Clean Water Action and the Coalition for a Safe and Healthy Connecticut is very concerned about the rising incidence of cancers in firefighters and children's diseases linked to toxic chemicals, particularly childhood cancers. Cancer is the second leading cause of death for children under the age of twenty.⁶ Leukemia, brain and other childhood cancers have increased by more than 20% since 1975. While we are doing a better job of treating these serious diseases and reducing mortality, a cancer diagnosis at any age is devastating. Any opportunity to reduce exposure to toxic chemicals, particularly for firefighters and children, is critically important. HB 5404 is an important step in the right direction and we urge its passage.

Sincerely,

A handwritten signature in dark ink, appearing to read "Anne B. Hulick".

Anne Hulick

³ Shaw, S; Blum, A; Weber, R; Kurunthachalam, K; Rich, D; Lucas, D; Koshland, C; Dobraca, D; Hanson, S; Birnbaum; "Halogenated Flame Retardants: Do the Fire Safety Benefits Justify the Risks?" Reviews on Environmental Health Vol. 25, No. 4; (2010).

⁴ Shaw, S; Bergeer, M; Harris, J; Yun, S. Wu, Q; Liao, C; Blum A, Stefani, A, Kannan, K; "Persistent organic pollutants including polychlorinated and polybrominated dibenzo-p-dioxins and dibenzofurans in firefighters in Northern California" Chemosphere (2013) <http://dx.doi.org/10.1016/j.chemosphere.2012.12.070>.

⁵ Erika Schreder, Mark LaGuardia; *Flame Retardant Transfers from U.S. Households to the Aquatic Environment*. Environmental Science and Technology 2014; 16:10:16

⁶ Safer Chemicals Healthy Families, "The Health Case for Reforming the Toxic Substances Control Act" Jan. 2010, p. 5.